L Number	Hits	Search Text	DB	Time stamp
7	4	Douglas NEAR antelman	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/15 16:10
13	269	E2F SAME (RB OR RB56)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/15 16:11
19	195	(E2F SAME (RB OR RB56)) and fusion	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/15 16:11
25	191	((E2F SAME (RB OR RB56)) and fusion) and (cancer or hyperproliferative or tumor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/15 16:16
31	39	(((E2F SAME (RB OR RB56)) and fusion) and (cancer or hyperproliferative or tumor)) and (E2F NEAR RB)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/04/15 16:16
37	8	(US-5457049-$ or US-5532340-$ or US-5650287-$ or US-5759803-$ or US-5821070-$ or US-6379927-$ or US-6384299-$).did. or (WO-9821228-$).did.	USPAT; EPO	2003/04/15 16:20

L30 ANSWER 23 OF 35 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:175056 CAPLUS
DOCUMENT NUMBER: 122:77333
TITLE: The E2F transcription factor: role in cell cycle regulation and differentiation
AUTHOR(S): Chellappan, Srikumar P.
CORPORATE SOURCE: College of Physicians and Surgeons, Columbia University, New York, NY, 10032, USA
SOURCE: Mol. Cell. Differ. (**1994**), 2(3), 201-20
CODEN: MCDIEL; ISSN: 1065-3074
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review, with 95 refs. The **E2F** transcription factor comprises a family of proteins that bind to the sequence TTTCGCGC and regulate the expression of various promoters. **E2F** exists in complexes with different cellular proteins such as the **retinoblastoma tumor** suppressor protein, p107, p130, **cyclins A** and E, and the kinase cdk2. Viral oncoproteins such as adenovirus E1A, simian virus 40 T antigen, and human papillomavirus E7 protein can disrupt **E2F**-contg. complexes releasing free, active **E2F**. This appears to be a crit. step in the transformation induced by these viruses. **E2F** binds to DNA as a dimer with other protein(s), and the phosphorylation of the dimerization partner can inhibit the DNA-binding activity of **E2F**. **E2F** is emerging as a key player in cell cycle regulation, differentiation, and apoptosis. This review is an update of recent developments in the study of this transcription factor.

L30 ANSWER 28 OF 35 MEDLINE

ACCESSION NUMBER: 94019328 MEDLINE
DOCUMENT NUMBER: 94019328 PubMed ID: 8413252
TITLE: Association of the human papillomavirus type 16 E7 protein with the S-phase-specific E2F-**cyclin A** complex.
AUTHOR: Arroyo M; Bagchi S; Raychaudhuri P
CORPORATE SOURCE: Department of Biochemistry, University of Illinois at Chicago 60612.
CONTRACT NUMBER: CA 55279-02 (NCI)
SOURCE: MOLECULAR AND CELLULAR BIOLOGY, **(1993 Oct)** 13 (10) 6537-46.
Journal code: 8109087. ISSN: 0270-7306.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199310
ENTRY DATE: Entered STN: 19940117
Last Updated on STN: 19980206
Entered Medline: 19931026

AB The transcription factor **E2F** has been shown to be involved in the expression of several cell cycle-regulated genes, and the activity of this factor is controlled by cellular proteins such as pRB and p107. **E2F** is also a target of the DNA virus oncoproteins (adenovirus E1A, simian virus 40 T antigen, and human papillomavirus [HPV] E7) (see the review by J. R. Nevins [Science 258: 424-429, 1992]). These viral oncoproteins dissociate an inactive complex between **E2F** and the **retinoblastoma tumor** suppressor protein (pRB), and this dissociation of the **E2F**-pRB complex correlates with a stimulation of the **E2F**-dependent transcription. In the S phase of the cell cycle, **E2F** forms a complex with p107, **cyclin A**, and the cdk2 kinase (**E2F-cyclin A** complex). The cellular function of this S-phase-specific complex is unclear. The adenovirus E1A protein dissociates the **E2F-cyclin A** complex. The HPV type 16 (HPV-16) E7 protein, which possesses significant sequence homology with E1A, does not dissociate the **E2F-cyclin A** complex. We find that the HPV-16 E7 protein associates very efficiently with the **E2F-cyclin A** complex. This association is dependent on the sequences that are also necessary for the transforming activity of E7. Moreover, the E7 protein of a low-risk HPV (type 6b) is much less efficient in binding to the **E2F-cyclin A** complex compared with that of the high-risk type. We also find that the **E2F-cyclin A** complex remains endogenously associated with the E7 protein in extracts of Caski cells, which express high levels of HPV-16 E7 protein. Finally, we have extensively purified the **E2F-cyclin A** complex from mouse L-cell extracts and show that, in cell extracts, the **E2F-cyclin A** complex remains associated with other cellular proteins.

L30 ANSWER 32 OF 35 MEDLINE
ACCESSION NUMBER: 93200765 MEDLINE
DOCUMENT NUMBER: 93200765 PubMed ID: 8384033
TITLE: Oncogenic activation of **cyclin A**.
AUTHOR: Brechot C
CORPORATE SOURCE: CHU, Necker, Paris, France.
SOURCE: CURRENT OPINION IN GENETICS AND DEVELOPMENT, **(1993 Feb)** 3 (1) 11-8. Ref: 53
Journal code: 9111375. ISSN: 0959-437X.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199304
ENTRY DATE: Entered STN: 19930507
Last Updated on STN: 19970203
Entered Medline: 19930419

AB **Cyclin A** associates with both the p34 cdc2 and p33 cdk2 kinases and is involved at two major check-points (G1-S and G2-M) of the cell cycle. The cyclin has been identified in multimeric protein complexes that incorporate the **E2F** transcription factor, the p33 cdk2 kinase, and p107, which is related to the **retinoblastoma** protein. Therefore, **cyclin A** provides a link between studies on the cell-cycle machinery and those aiming to elucidate the modulation of cell proliferation and regulation of gene expression by oncogenes and growth-suppressor proteins. The modification of **cyclin A** expression in a human liver **cancer** by the insertion of hepatitis B viral DNA into the **cyclin A** gene, and binding of **cyclin A** to the oncogenic E1A viral protein in adenovirus-infected cells suggest that the cyclin is implicated in human carcinogenesis. In addition, **cyclin A** might also be considered as a marker for **tumor**-cell proliferation in oncology. With these views in mind, it is now important to extend these observations to other types of **cancer**.